Digital Convergence
USP2030

AI HUB

The AI Hub for Social Protection

Advancing responsible AI innovation

Launch Webinar

December 2025

Housekeeping

This session is being recorded and along with this presentation it will be available on socialprotection.org and sent to all registrants after the session.

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Use the chat box to present yourself, make comments or share useful links.

Share your questions with the speakers through the Q&A box!

Please state your name/organisation, and if your question is directed to a specific speaker.

Simultaneous interpretation

In your Zoom controls, click in the button 'Interpretation' and select the language that you would like to hear. French, Spanish, Portuguese available

Agenda

1) **Welcome and opening remarks**
2) **AI Hub mission**
3) **Responsible AI innovation in social protection: Where are we and how can the AI Hub advance it?**
4) **Insights from the field**: Applying AI in social protection in Pakistan
5) **Expert Panel**: “The AI Hub for SP: Advancing responsible AI for social protection”
6) **Participants Q&A and closing**

Opening Remarks

by Rodrigo Assumpção

In one word, how do you feel about AI in social protection?

wooclap.com

Event code

JPBAGO

The AI Hub for Social Protection under the DCI

by Ralf Radermacher

AI as a promise and pitfall for social protection

- **AI is rapidly becoming an important driver** of the digital transformation of social protection systems worldwide.
- **It opens up new opportunities** to innovate and enable more effective, efficient, and inclusive programmes.
- **At the same time, AI introduces significant challenges**: opaque models, algorithmic bias, automated decisions, and unintended harms can undermine human rights and threaten the inclusiveness and equity of systems.

Digital Convergence USP2030 | AI HUB

The AI Hub for Social Protection **supports institutions in building the capacities** needed to govern, design, and implement AI in a responsible, sovereign, and risk-aware manner.

The AI Hub - at a glance

- The AI Hub is a **global partnership** that works with governments to **harness the potential of AI for social protection.**
- supports the **design, implementation and governance of AI solutions** in social protection institutions.
- **empowers social protection institutions** to shape and advance their own AI journeys.
- **facilitates global peer-to-peer learning.**

Digital Convergence USP2030 | AI HUB

- operates under the **Digital Convergence Initiative (DCI)**
- Initiated in June 2025
- A joint effort by GIZ and partners

Implemented by

BG BAU Berufsgenossenschaft der Bauwirtschaft

Canada

DATAPREV

Deutsche Rentenversicherung

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

issa

Principles we work by

Responsible

Safeguarding and strengthening human rights by leveraging responsible and ethical AI approaches and concepts for social protection.

Innovative

Creating a space for innovation and working with social protection actors across sectors and disciplines to seize AI benefits.

Sovereign

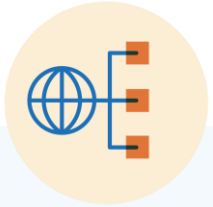
Promoting the digital sovereignty of partner countries to ensure that social protection institutions remain in control of how they use AI – on their own political and technical terms.

How we work

The AI Hub supports partner countries with a responsible, innovative and sovereign AI adoption in social protection. It explores the role of AI for enhancing SP systems, structured around the **4 DCI action areas** and through building a **global expert network**.

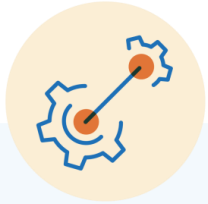
Knowledge Sharing

Creating and sharing knowledge around AI in social protection fostered through a sector-wide, global expert network for peer-to-peer learning.



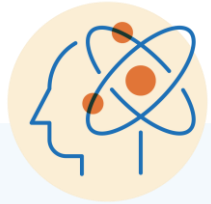
Digital Public Goods

Developing technical blue prints, standards and guidelines for AI-driven solutions in social protection. Sharing these AI DPGs via digital platforms.



Country support

Providing policy and technical advisory services through global experts to promote responsible AI adoption for more efficient and inclusive social protection systems.



Capacity development

Creating materials and trainings for AI and data literacy tailored to the social protection context.

Country support for governments on responsible AI

Scope of Support

- policy and technical expertise through a **global expert pool**
- **in a targeted and time-bound** manner
- **Short to medium term advisory services**
- **Delivered** collaboratively **with government counterparts**
- **Hybrid delivery,** with demand-based virtual and in-person support

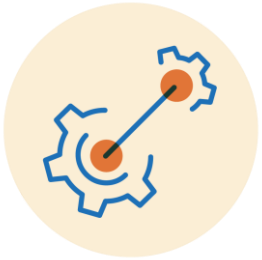
Topics include:

Policy

- AI Strategy
- Governance and Regulatory frameworks
- Anti-Discrimination, Gender & Ethics
- Risk and impact assessments

Technical

- Needs assessment and scoping of AI use cases
- AI model development
- Data management and governance
- Testing of algorithms (robustness, fairness)
- Technology and infrastructure



How we deliver country support

Access criteria

- Requests from **national or regional governments for a specific AI challenge**
- **Availability of local development partner** for project support and local expertise
- **Alignment and commitment to ethical and responsible AI** adoption

Intake & Scoping

- Needs assessment
- Structured scoping calls
- Definition of support
- Initial risk and feasibility assessment

Project Implementation

- Provision of advisory services
- Iterative co-creation with government and partners
- Quality Assurance & Hand over of outputs
- Measures for sustainable integration

Feedback & Evaluation

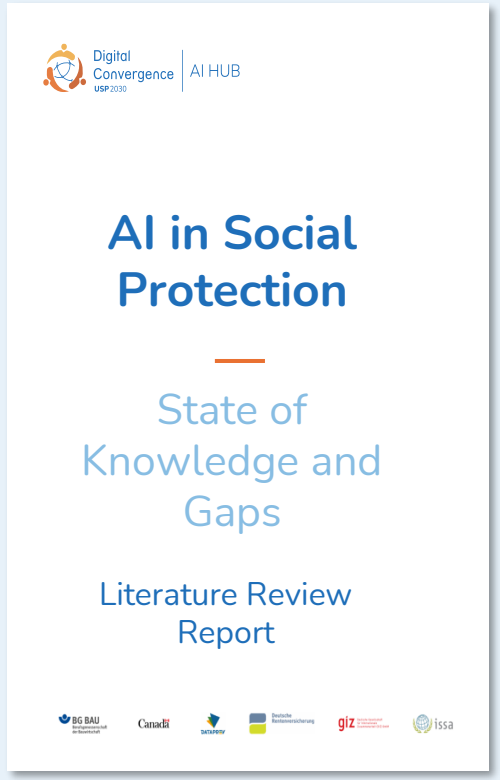
- Feedback on provided support
- Learning and improvement
- Follow up calls on demand for sustainable integration

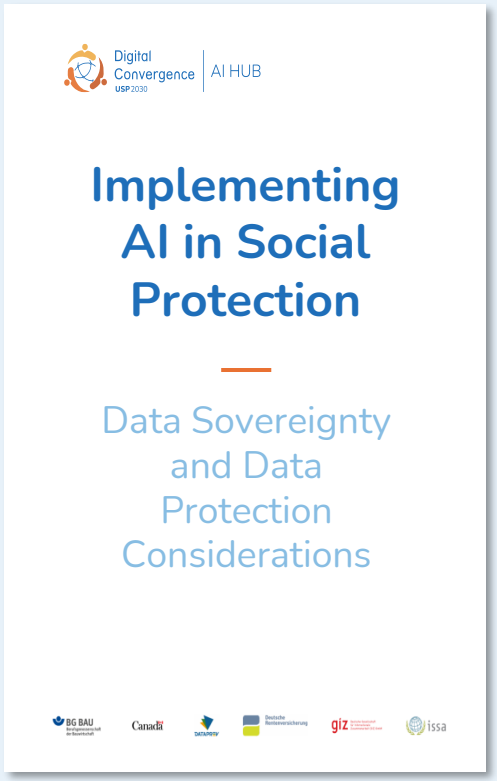
Interested in joining this network and to learn more about our country support?

Feel free to visit our website https://spdci.org/ai-hub/

Or contact us at contact@spdci.org

Upcoming publications

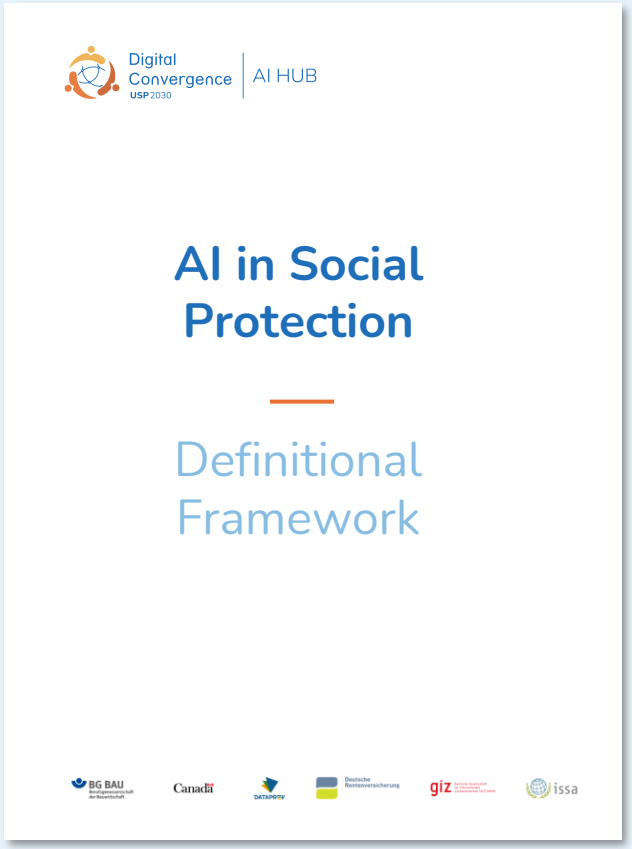




Responsible AI innovation in social protection

by Thomas Byrnes

The AI Hub Definitional Framework



Where AI Is Used Across the Social Protection Delivery Chain

Global Evidence Review

A Global Divide in AI Deployment (2020–2025)
Two Worlds of AI in Social Protection

Low-Income Countries — 'Gatekeeping' Use of AI

AI is concentrated at the front door of programmes, reinforcing identity, targeting and eligibility checks.

1. Assess: Targeting Models

Inference models for vulnerability scoring and eligibility prediction.

2. Enrol: Biometric Verification

Biometric authentication and deduplication to validate beneficiary identity.

Key Risk: Exclusion at the point of entry — biometric failure, mismatches, and opaque targeting scores.

99 verified use cases across 44 countries

High-Income Countries — 'Operational' Use of AI

AI supports efficiency, integrity, and service optimisation in mature SP systems.

1. Provide: Fraud & Integrity Analytics

Machine-learning models flag anomalous transactions and suspicious patterns.

2. Manage: Automation & User Services

Chatbots, document triage, and operational forecasting tools.

Key Risk: Opaque algorithmic decisions and 'de facto' automation when human review capacity is insufficient.

AI Across the Delivery Chain: Verified Patterns

Assess (28% of cases)

- Shift from static proxies to **dynamic** (e.g., satellite/CDR data for poverty maps)
- Strong growth in **Anticipatory Action** where payments are triggered by **predictive climate models**

Enrol (21% of cases)

- Dominated by **Computer Vision** (Biometrics) for de-duplication and authentication
- High **'decision criticality'** as these systems directly control access to benefits

Provide & Manage (50% of cases)

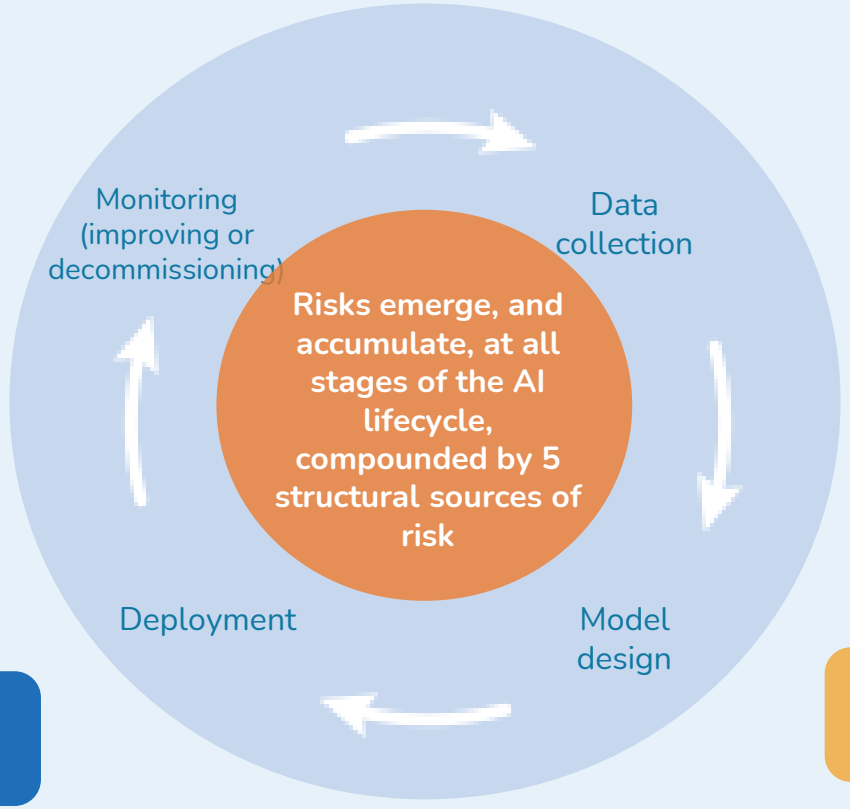
- Focus on **Efficiency & Integrity**: Fraud detection, conversational assistants, and automated document processing
- Emergence of **Generative AI** (since 2023) for summarizing case files and drafting correspondence

AI in Social Protection Risks and Safeguards Framework

5. MARKET, SOVEREIGNTY & INDUSTRY STRUCTURE RISKS

4. OPERATIONAL RISKS

1. RISKS RELATED TO DATA



3. GOVERNANCE & ORGANISATIONAL RISKS

2. RISKS RELATED TO AI MODELS

HUMAN and SOCIETAL IMPACTS

e.g. exclusion from essential benefits, discriminatory treatment, opaque or unexplained decisions, or a lack of meaningful avenues to contest errors

Risk-Assessment and Scoring Method

Characteristics of the AI system itself

Governance environment and context in which it will be used

Risk register (central supervisory log) (Tool 3)

Intrinsic risk assessment *(Tool 1)*

- **Likelihood that the system produces harmful or biased outputs**
- **Severity of harm that could occur**
- **Scale at which harm may be felt**

Assessed and combined:
Low, Medium or High Risk

Context Risk Multiplier diagnostic (Tool 2)

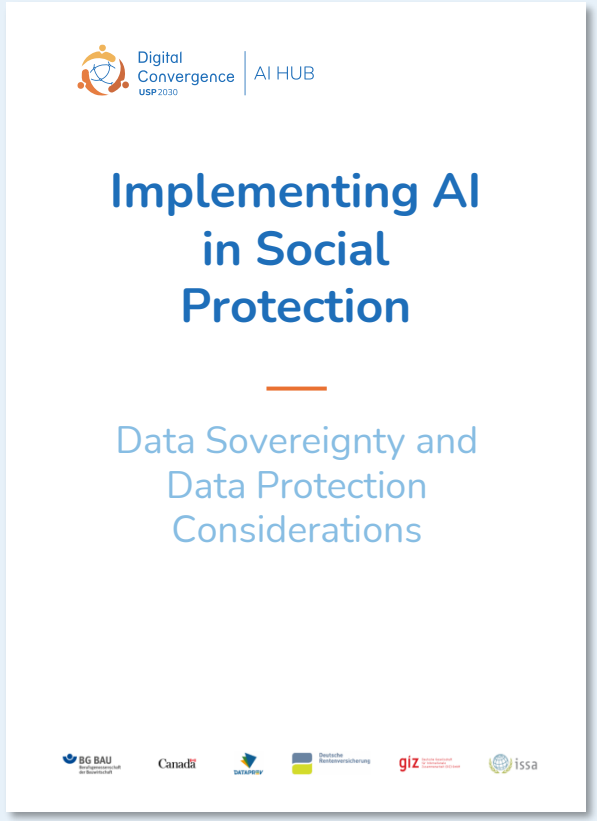
- **Legal framework**
- **Institutional capacity**
- **Data ecosystem**
- **Public trust and transparency**

Assessed and combined:
Strong, Moderate or Weak
Weak readiness amplifies risk

Go/Pilot/ No-go Checklist *(Tool 4)*

Overall risk profile: **Low = GO** Medium = PILOT **High = No-Go/Pause**

Implementing AI in Social Protection: Data Sovereignty and Data Protection



Key dimensions affecting sovereignty risk exposure

A

Data sensitivity:

the greater the sensitivity of the data, the higher the sovereign obligation to retain legal and operational control.

B

Computational demands:

Some lightweight predictive tools can be run on ordinary government servers, while others require high-performance computing typically provided by global cloud vendors.

C

Model training :

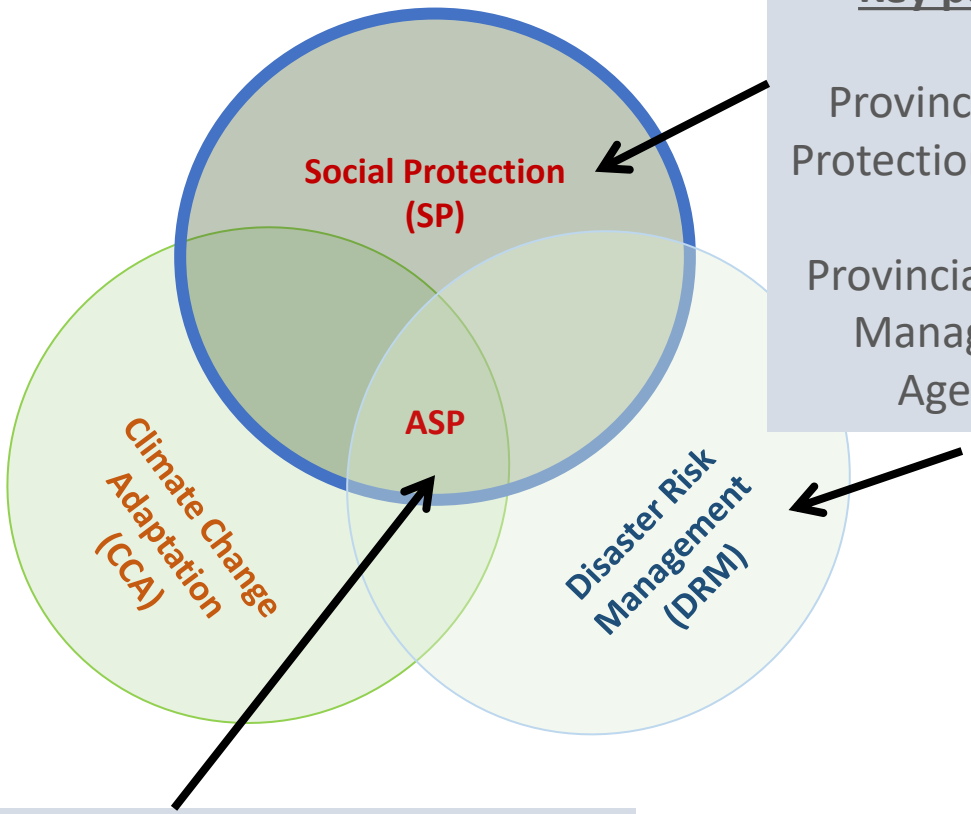
Training determines how the model learns from data, what patterns it internalizes, and who owns the resulting model weights. When training occurs on foreign infrastructure or with mixed datasets, sovereignty risks multiply

Insights from the field

by Robert Worthington

Exploring AI for Flood Response

- **GIZ Adaptive Social Protection programme**
- Budget: EUR 26 million
- Co-financed by BMZ and EU
- Duration: August 2023 – December 2028
- Led by Johanna Knoess
- Building Bridges from Social Protection to:
  - Disaster Risk Management
  - Climate Change Adaptation



Key partners

Provincial Social Protection Agencies

Provincial Disaster Management Agencies

Common goal:

To **strengthen the resilience** of the population against natural hazards and climate change-related risks and their **negative socio-economic impacts**

Severe and recurring floods drive AI exploration

Problem

- 2022 floods were the worst in Pakistan's history, affecting 33 million people, killing over 1,700 individuals, and causing economic losses exceeding $30 billion
- 2025 monsoon season resulted in further 946 deaths
- Monsoon rains are likely to increase in the coming decades, making extreme flooding more common

Challenge

- Limited river gauges to understand flow rate (~90 nationally)
- Current forecasts typically provide a one to two days warning
- Not enough time to plan and take action

Use Case

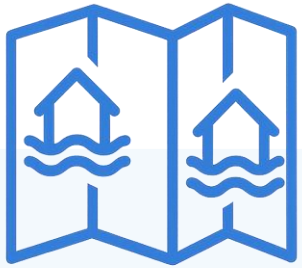
- Using AI to inform anticipatory action
- Part of ASSESS function

AI for flood forecasting

Explored AI models developed by Google Research that forecasts floods.
Example of an early-warning system for anticipatory action.

Hydrology model

Forecasts the amount of water flowing in a river



Inundation model

Predicts which areas will be affected and how high the water will rise.

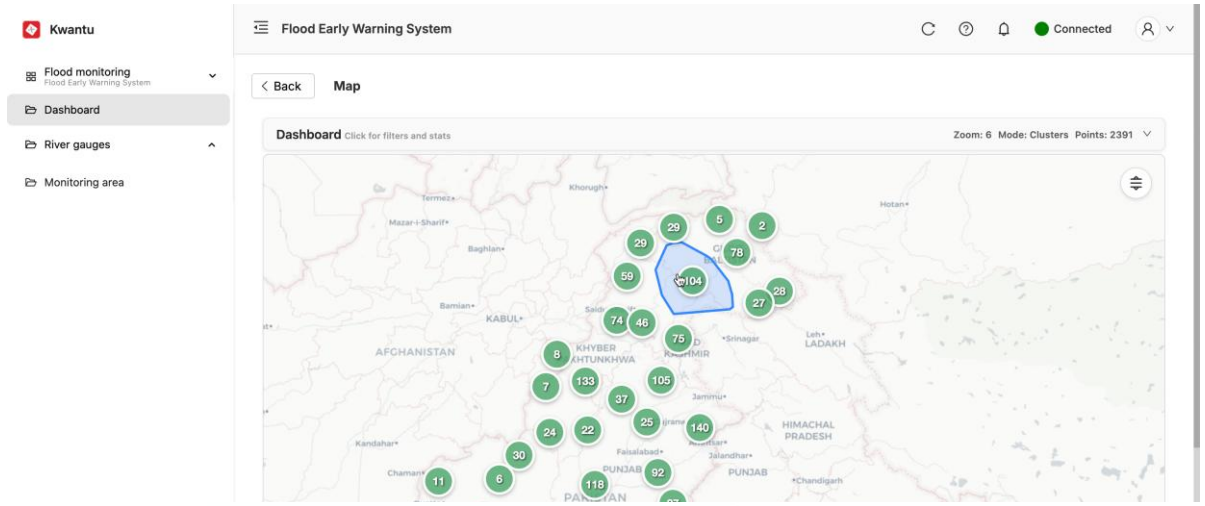
Virtual river gauges

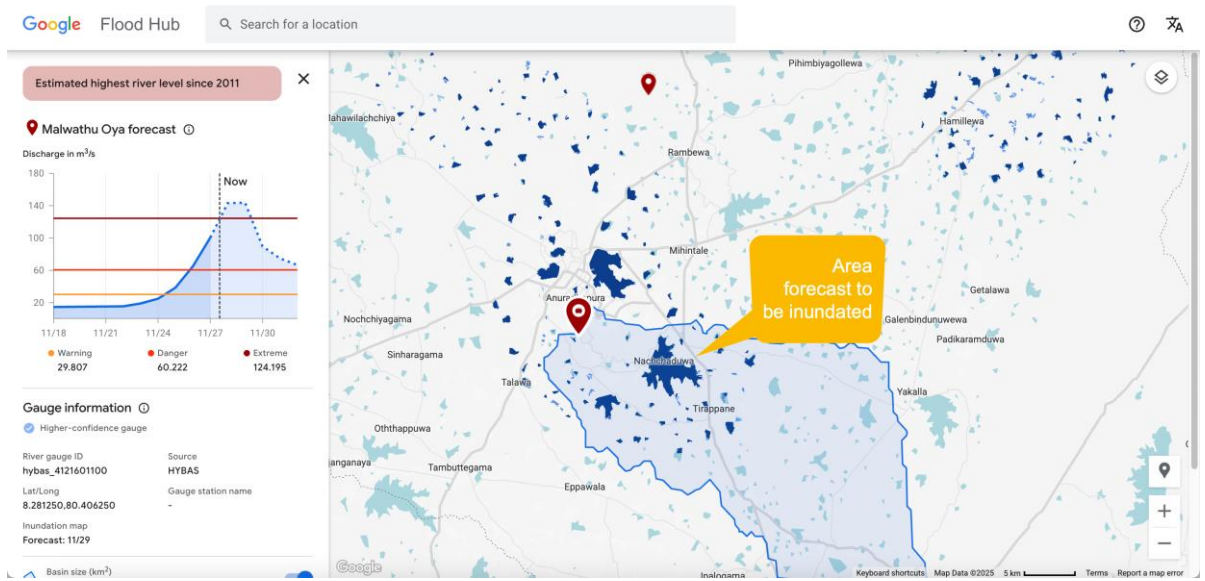
Generates thousands of ‘virtual river gauges’ that each give a 7 days advance warning for the local area

https://sites.research.google/floods

From a model to a working prototype

- While Google Flood Hub provides a sophisticated web-based platform, local decision-makers (PDMA) primarily operate via WhatsApp groups, phone calls, and paper reports.
- No existing workflow for officials to actively monitor a website 24/7 for potential alerts.
- Prototype created to monitor 2391 virtual gauges nightly
- Sends targeted email alerts for gauges forecasting flooding
- First line of alert





Forecasting success in Khyber Pakhtunkhwa

- In July 2025 Google Flood Hub provided a 3-4 day advance warning for severe flooding in the Chitral region.

- "*We are very thankful... the local administrator acted upon the forecast and they evacuated 4 households. Those houses were later destroyed by flooding but there were no casualties.*" — Ismail Yousafzai, PDMA KP Technical Lead.

But validating forecasts is challenging

Methodology

- Validate forecasts against historical river gauge data

Data set

- Data from 19 physical river gauges available for comparison
- Only 8 data points available over 5 days
- All data is in form of scanned PDF requiring OCR for analysis

Results

- 5 gauges show very high accuracy levels 0.5 to 16.8% variance (n = 8) Others not within acceptable accuracy levels

Conclusion

Model re-calibration needed for some virtual gauges
Requires sharing data from river gauges

Decision – put project on hold for now

Key issue: Legal restrictions prevent sharing government data internationally needed for model re-training

Three options under consideration:

Collaborate with ADB programme focusing on river gauge integration

Implication – 2 year + timeframe

Explore options for local validation (eg community based validation)

Implication – localised piloting and operationalisation

Explore local hosting and refinement of model

Implication – will require significant investment

Key learnings

- **AI exploration informed by a clear and real problem:** High consensus among partners on this problem area and use case
- **Prototype development demonstrated feasibility**: Working demo illustrated viable workflow for operationalising anticipatory action
- **Risks are sector dependent**: Risk for anticipatory action is of incorrectly including or excluding people. Risk for DRM agencies is of failing to evacuate people or evacuating people that were not at risk. Different orders of magnitude
- **Data sovereignty versus cost and speed**: Cloud models are faster to deploy and outperform local deployments, but legitimate sovereignty concerns exist – requires nuanced strategies

Today with us

Rodrigo Assumpção
CEO of Dataprev

Teresa Barrio Traspaderne
Amnesty Tech

Raul Ruggia-Frick
Director of ISSA

Hajar Khyati
ANSS Morocco

Raphaël Duteau
ESDC

If the AI Hub could support you with one thing, what would that be?

wooclap.com

Event code

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Participants Q&A

Thank you for attending the webinar

Interested in joining this network and to learn more about our country support?

Feel free to visit our website https://spdci.org/ai-hub/

Or contact us at contact@spdci.org